

Hatchery Biosecurity



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What is Biosecurity?

- **Basic Definition-**

Practices that minimize the risk of introducing an infectious disease or nuisance species and spreading it to animals at a facility.

- **3 Basic Principals**

1. Reduce risk of pathogen introduction to the facility
2. Reduce risk of pathogen spread throughout the facility
3. Reduce conditions within a facility that increase susceptibility to infection and disease



Major Goals of Biosecurity

- **Animal Management**

Obtain healthy stock and optimize health through good husbandry

- **Pathogen Management**

Prevent, reduce or eliminate pathogens (routine testing, disinfection, vaccination, quarantine, etc...)

- **People Management**

Educate and manage staff and visitors (training, standard operating procedures, limited access, etc...)



July 27th, 2015

Whirling Disease Confirmed in NC.

How did WRC Hatcheries Respond?

- Temporarily suspended stocking
- Submitted fish for testing
- Submitted sediment samples for testing
- Reached out to other Whirling Disease positive states for guidance
- Evaluated our existing biosecurity practices
- Began developing practical steps to enhance biosecurity for pathogens and ANS threats at WRC facilities.



How Are We Enhancing Biosecurity?

First we had ask/answer some questions

- What are our concerns?
- Where are we vulnerable?
- How can we address the risks with changes in procedure or technology?
- How do we evaluate what we are doing?
- What is practical?



How Are We Enhancing Biosecurity?

Example:

Fish Distribution-movement of fish among hatcheries, or among hatcheries and waterbodies.

- Greatest potential for introducing or spreading pathogens or ANS.
- We routinely stock fish in various waterbodies and transfer fish between facilities to meet agency goals.
- Equipment(truck, nets, buckets, boots, etc...) could be contaminated.
- Must assume the worst.



New Procedures for Distribution Equipment

After stocking/transfer

1. Drive fish-hauling unit away from water body so wastewater or chemicals do not drain into the water body.
2. Thoroughly inspect and remove any plant materials, animals, excess organic matter, or mud from the fish-hauling unit.
3. Thoroughly spray all equipment (including the hauling tank, air stones, agitators, pumps, nets, hoses, etc.) and gear (including personal gear, waders, gloves, etc.) with Virkon Aquatic solution(1%).
4. Return to hatchery.



New Procedures for Distribution Equipment

Upon Return to Hatchery

1. Drive fish-hauling unit to designated wash area.
2. Use the hot-water pressure washer to clean the fish-hauling unit and other equipment that can withstand pressure washing.(+140°F)
3. After spraying the equipment clean, all surfaces must be rinsed with low-pressure flow of hot water to achieve temperatures in the recommended range.
4. Park fish-hauling unit in designated area.
5. Fill out and maintain disinfection log for truck.
6. Allow fish-hauling unit and other equipment to dry before reuse, if possible.



Other Procedures

- ✓ Disinfect all gametes(eggs) entering facility
- ✓ Maintain clean work environment
- ✓ Clean and disinfect rearing units and equipment.
- ✓ Use designated equipment for certain areas and do not cross contaminate.
- ✓ Predator control/Visitor control



Thank You!



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